RES-XR6 1U

mercury systems®

18" Deep, Up to 4 Drives, Rear I/O Rugged Rack Mounted Server

- **Up to two Intel Xeon Scalable Processors with 28 cores**
- **Up to 2TB DDR4 ECC Memory**
- **Up to 60TB of Storage and 3 PCIe 3.0 cards**
- **MIL-STD: 810G, 901D, 167-1, 1474D, 740-2, 461F**
- **Manufactured in AS5553 compliant, AS9100D facilities**

A part of the *EnterpriseSeries™*, Mercury's RES-XR6 1U Server employs the latest Intel® Xeon® Scalable processors to accelerate compute intensive workloads for applications such as signal intelligence, cryptography, AI, sensor fusion, analytics, communications, and audio/video processing.

Reliable Performance

Featuring up to **two Intel® Xeon® Scalable processors** with AVX512, **2TB DDR4 ECC memory**, **60TB of storage** with two to four disk drives, expansion slots, and enhanced reliability features, RES-XR6 1U delivers superior workload-optimized performance and hardware-enhanced security. Advanced thermal and mechanical design features provide superior resilience to shock, vibration, dust, sand, and temperature extremes. Hardware and firmware management ensures delivery of the same server configuration over multiple years.

Space Optimized Stealth and Flexibility

Quiet and optimized for size, weight, and power (SWaP), the system weighs only **17lbs**, is **18" deep**, and meets multiple military environmental specifications including **airborne and structural noise**. A robust array of high speed I/O, storage options, expansion choices, and security features allow users maximum flexibility for current and future system requirements.

Mercury Systems is a leading commercial provider of secure sensor and safety-critical processing subsystems. Optimized for customer and mission success, Mercury's solutions power a wide variety of critical defense and intelligence programs.

Enhanced for the the Field

The system includes a system control module for remote management, a patented Aeroloc Baffle system for low airflow operations, **remote battery bypass** that enables BIOS battery replacement without system shutdown, a removable PCIe card cage to simplify sparing, and numerous enhancement options. Additional features, testing, and certifications are available upon customer request.

Proven Performance

Mercury's EnterpriseSeries RES Servers are trusted worldwide for their high-performance, **long life cycles**, thermal resiliency, compatibility with industry standards, and **SWaP optimization**. With the latest Intel core-count processors and configurable I/O, RES servers are ideally suited to next-gen radar, mission, advanced simulation, command, control, and battle management processing mission critical applications.

Your Reliable Teammate

With over 30 years of technical expertise, Mercury Systems works closely with customers to design computing solutions that are easy to integrate, affordable, and reliable for years to come.

Our AS5553 compliant, AS9100D and ISO9001 facilities maintain quality and compliance to meet customer expectations.

ACQUIRE   DIGITIZE   PROCESS   STORAGE   EXPLOIT   DISSEMINATE

Technical Specifications

2 Intel® Xeon® Scalable CPUs with up to 28 cores per processor
  Bronze, Silver, Gold, or Platinum
Up to 2TB 2666MHz memory
Intel® IOT Systems Alliance Solutions: AMT, TXT, AVX

Patented Technologies

Memory stabilization
Aeroloc baffle system
System control module for remote management

Management and Operating System

Windows®, Linux®, VMWARE® and other hypervisors
IPMI v2.0, Redfish option available
TPM 1.2 or 2.0 Support

Expansion and Modular Maintainability

Up to 3 PCIe 3.0x16 cards (full height, half length) in removable card cage
1 Internal M.2 PCIe drive
1 PCIe 3.0 x16 OCP LAN Mezzanine card

Input/Output Versatility

Front Access
  4 Removable, Hot Pluggable, 2.5" SATA/SAS3 drive, U.2 NVME option available
  1 Power/Reset Switch
  1 CFM Switch (optional)
  1 Power On LED
  2 USB 3.0 (optional)
  1 Quick Change CMOS Battery

Rear Access
  2 1GBaseT or 10GBaseT Ethernet Ports (RJ45)
  2 USB 3.0
  1 RS-232
  1 IPMI 2.0 (RJ45)
  1 VGA Graphic Port

Power Supply Options

Single 100/240V VAC (47/63Hz, 400Hz)
Single 10-36 VDC, 32 Amps
Single 36-72 VDC, 18 Amps
MIL-STD 461, 704F, 1399-300B

Additional Options

Front Door Filter
Slide Rails
CAC Card Reader
Read/Write Switches to prevent accidental rewrite

MIL-STD / Industrial Specifications

MIL-STD 810G
Shock: MIL-STD 901D Grade A
EMI/RFI: MIL-STD 461F, CE102 standard
Vibration: MIL-STD 167-1, MIL-STD 810G
Airborne Noise: MIL-STD 1474D
Structure Borne Noise: MIL-STD 740-2

Environmental*

Operating
  Temperature: 0°C to 50°C
  Extended Temperature: -15°C to 65°C
  Humidity: 5% to 95% (non-condensing)
  Shock: 3 axis, 35g, 25ms
  Vibration: 4.76Grms, 4Hz to 2000 Hz (SSD)
  Altitude: 10,000 ASL
Non-Operating
  Temperature: -40°C to 80°C
  Humidity: 5% to 95% (non-condensing)
  Altitude: 40,000 ASL
Conformal Coating: IPC-CC 830 (optional)

Mechanical

Height: 1U or 1.75" inches (44.45mm)
Width: 17 inches (433.3mm)
Depth: 18 inches (457.2mm)
Weight (Typical)*:
  Steel Chassis: 20lbs (9.1kg)
  Aluminum: 17lbs (7.7kg)
Cooling: forced air (rear vent) front to rear
19" rackmountable

* Mercury Systems designs all products to meet or exceed listed data sheet specifications. Some specifications including I/O profiles, weight, and thermal profiles are configuration dependent. Contact Mercury for information specific to your desired configuration requirements.

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